

## Abstract

A filter such as an air having a reagent which chemically reacts with and removes a gaseous component of an air stream. The reagent contains functional groups covalently bonded to a non-volatile inorganic substrate which is incorporated in the filter. The filter can remove gaseous components such as aldehydes. Preferred functional groups are 3-aminopropylsilyl groups covalently bonded to silica gel (APS silica gel). The reagent can be contained in a space in the filter or incorporated in one or more filter elements. The reagent can be part of or coated on paper such as filter paper or incorporated in non-paper filter elements formed from fibrous materials such as cellulose acetate or polypropylene fibers. Other preferred reagents include aminoethylaminopropylsilyl silica gel (AEAPS) and aminoethylaminoethylaminopropylsilyl silica gel (AEAEAPS).

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